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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,395	10/27/2000	Topi Koskinen	460-009824-US(PAR)	2829

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EXAMINER	
SEFCHECK, GREGORY B	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/697,395	KOSKINEN ET AL.	
	Examiner	Art Unit	
	Gregory B. Sefcheck	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10-22 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8, 10-22, and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

- Applicant's Request for Continued Examination filed 1/20/2006 is acknowledged
- Claims 1, 11, 18, and 24 have been amended.
- The previous rejection of claims 1-8 and 10 under 35 USC 112, 2nd paragraph is withdrawn in light of the present amendments.
- Claims 9 and 23 had been previously cancelled.
- Claims 1-8, 10-22, and 24 remain pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 6-8, 10-14, 16-19, 21-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frid et al. (US006560239B1), hereafter Frid.

- In regards to Claim 1, 2, 8, 10, 11, 16, 18, 21, 22, and 24

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal (Title; Abstract; Col. 4, lines 33-52; claims 1,11,18,24 – first connection is a packet connection and second connection is a circuit-

switched connection; claims 10,16,22 – terminal is a wireless terminal and network is a mobile communication network).

Referring to Fig. 3, Frid shows establishing a packet data connection between a terminal and a packet-switched network, including negotiating a communications protocol with a peer, such as a server associated with an Internet Service Provider or ISP (302-310; Col. 5, lines 20-30; claim 1,11,18,24 – means for establishing data connection between application server of network and terminal using packet data service as bearer).

Frid further shows establishing a circuit-switched connection between the terminal and the network (312-316; claim 1,11,18,24 – means for establishing circuit-switched connection between network and terminal).

Frid shows that the terminal sends a message (318) for interrupting the packet data connection, but maintaining the connection protocol communication with the server, while accepting the circuit-switched connection (320-336; claim 1,11,18,24 – means for interrupting the packet data connection for the time of the circuit-switched connection; claim 1,11,18,24 – means for setting up a message for maintaining the packet data connection in connection with setting up of the circuit-switched connection; claim 1,11,18,24 – means for automatically starting the setting up of the message maintaining the packet data connection; claim 2 – message for maintaining the packet data connection is generated in the terminal and transmitted from the terminal to the server of the network; claim 8,21 – maintenance message is supplemented with a "no operation" command).

Frid does not explicitly disclose the message includes a command to reset a maintenance counter in the server to monitor the state of the terminal for re-establishing the packet data transmission.

However, Frid discloses that a packet data connection that has not timed-out may be re-established upon termination of the circuit-switched call (Abstract; Col. 3, lines 5-7; Col. 7, lines 15-18; Col. 8, lines 38-40; Col. 9, lines 30-41). This disclosure in Frid illustrates that a timer or counter associated with the interrupted/maintained packet data connection is set (reset) for the duration of the circuit-switched call to monitor for time-out.

It would have been obvious to one of ordinary skill in the art at the time of the invention to explicitly include a command to set a maintenance counter for monitoring the state of the terminal for re-establishing the packet data connection in the message of Frid. One would be motivated to make such a modification because packet data connections that are interrupted and maintained during an accepted circuit-switched call can only be re-established if they have not timed-out. Therefore, setting a counter upon interruption would allow for the monitoring of a time-out condition for the packet data connection.

- In regards to Claim 3 and 13,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched

(second) connection to the wireless terminal that covers all limitations of the parent claims.

Frid shows that the network maintains the parameters of the packet data connection (claim 3,13 – message for maintaining the PPP parameters of the packet data connection is set up at the peer – server – to which the terminal is connected) following receiving an acceptance message from the terminal for the circuit-switched connection (Fig. 3, 318-322; Col. 7, lines 32-65; claim 3,13 – sending information about interrupting the packet data connection from the terminal to the network).

- In regards to Claim 4 and 14,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.

Referring to Fig. 3, Frid shows that the method and terminal receives a message requesting to set up a circuit-switched connection (316; claim 4,14 – means to receive message to setup circuit-switched connection at the terminal).

Frid further shows that the acceptance of the circuit-switched connection (324) is transmitted from the terminal to the network after the maintenance information for the packet data connection is transmitted (318-320; claim 4,14 – means for transmitting reply message to the request for the circuit-switched connection from terminal to network after the message for maintaining the packet data connection is transmitted).

- In regards to Claim 6, 7, and 19,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.4

Frid shows that the packet data connection may communicate information between the network and a termination endpoint, such as the Internet or a server on a LAN (Col. 1, lines 27-35; Col. 5, lines 20-30; claim 6,7,19 – network communicates with a LAN/Internet; claim 6,7,19 – packet data connection is between terminal and server in LAN/Internet)

When the circuit-switched connection is accepted and the maintenance of the packet data connection is set up, the maintenance message is received at the termination endpoint (Fig. 3, 318-322; Col. 7, lines 57-65; claim 6,7,19 – network transmits maintenance message to server/Internet).

- In regards to Claim 12,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.

Frid shows that the terminal is equipped to generate and transmit a message to the network indicating that the packet data connection is to be maintained during a circuit-switched connection (Fig. 3, 318-322; Col. 7, lines 18-55; claim 12 – means for generating and means for transmitting the message for maintaining the packet data connection).

- In regards to Claim 17,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.

Frid discloses a terminal that comprises circuitry for processing (processor; claim 17 – terminal comprises a data processor) messages for the retention of a packet data connection for the duration of a circuit-switched connection (Fig. 3, 318-322; Col. 11, lines 6-31; claim 17 – means for setting up message for maintaining the packet data connection are arranged in the data processor).

3. Claims 5, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frid in view of Chen et al. (US006198945B1), hereafter Chen.

- In regards to Claim 5, 15 and 20,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.

Frid does not explicitly show selecting and adding a telephone number to the message for setting up the circuit-switched connection. Frid also does not show transmitting the maintenance message for the packet data connection after selecting the telephone number but before setting up the circuit-switched connection.

Chen discloses a method and system that enables a mobile terminal to place a first connection on hold while initiating a second connection by selecting a telephone number and adding that number to a message for setting up a second connection (Fig. 3, Col. 6, lines 15-63; claim 5,15,20 – means to select and add a telephone number to message for setting up the second connection; claim 5,15,20 – message maintaining the packet data connection is transmitted after the selection of a telephone number, before setting up the circuit-switched connection)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method, system, and terminal of Frid by selecting a telephone number for setting up the circuit-switched connection before maintaining the packet data connection and setting up the circuit-switched connection, as shown by Chen. This modification would allow a packet data connection to be maintained during either an incoming or an outgoing circuit-switched connection.

Response to Arguments

4. Applicant's arguments filed 1/20/2006 have been fully considered but they are not persuasive.

- In the Remarks on pgs. 11-12 of the Amendment, the Applicant contends that Frid does not disclose resetting a maintenance counter to prevent a connection from being timed-out. Applicant further contends that Frid addresses the problem of time-out but that the solution of Frid does not work if the connection has been timed out on the server side.
- The Examiner respectfully disagrees. In the rejection of the independent claims above, in response to Applicant's claim amendments, it is shown that Frid discloses the requirement to monitor the interrupted data connection for a time-out connection. Also, through use of the message 318 in Frid, it is shown that the server is informed of the desire to maintain the data connection. Therefore, Frid suggests an obvious modification of setting a counter associated with the interrupted data connection to monitor for a time-out event on the interrupted connection. Furthermore, contrary to Applicant's assertion, the claimed resetting of a maintenance counter will, at best, *delay* a time-out condition, not *prevent* time-out. Frid discloses that the data connection is in use up until the circuit-switched call initiates the data connection interruption. As such, time-out monitoring for the data connection would begin at that time, illustrating a setting, or resetting, of a time-out

"count" for the data connection at the point of interruption in the same way as disclosed by Applicant.

- In the Remarks on pg. 12-13 of the Amendment, the Applicant contends that there is no motivation to combine Chen with Frid because Chen discusses only circuit switched call signaling and does not mention a data connection.
- The Examiner respectfully disagrees. Chen and Frid are analogous because they both pertain to call signaling in a communications network. Chen is not required to disclose a data connection in order to disclose the claim limitations that are not explicitly shown by Frid. Those limitations involve the call signaling for setting up of a circuit-switched call. Therefore, the teachings of Chen are applicable to aspects of the circuit-switched connection setup in Frid, and the combination thereof is proper.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kalmanek, Jr. et al. (US 20030002512A1)

- Rode et al. (US006643689B2)
- Muller (US006295341B1)
- Bhatia et al. (US006118768A)
- McKendry et al. (US006058178A)
- Ekrot et al. (US005812751A)
- Bottoms et al. (US005711012A)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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